

=====

March 1995

Additional info: April 1998

=====

(=- NUMBERS & ODDITIES -=)

editor: Ary Boender

ary@bitbike.iaf.nl

2:283/512.24

Beacons ? NO WAY !

A couple of years ago the 'slhfb' or 'Single Letter High Frequency Beacons' could be heard on numerous frequencies throughout the SW spectrum. After the disintegration of the Soviet Union, many of them disappeared and only a few survived. Some of them are very active, especially station 'P'. For many years the stations have been listed by the 'experts' as 'beacons'. I however, am absolutely convinced that these beacons are in fact channel-markers for Russian naval stations. In the past dxers have noted Soviet naval callsigns on the 'beacon' freqs.

The first time I had a close encounter with the 'real' station was in December 1990, when I noticed the first RTTY broadcasts on 3807 // 4043 kHz. It started with the 'P' marker, followed by 75bd RTTY, then back to the marker and into 50bd RTTY and back to the marker again. I monitored the frequency for another hour or so and after ca half an hour 'P' stopped and 75bd RTTY began again. The messages were all 5L groups sent in normal Baudot. No other callsign was used, just the letter 'P'. Then on 22-1-1995, I finally had a positive id of channelmarker 'P'. On 3262 kHz at exactly 21.00 UTC channelmarker 'P' started it's transmission: 3 groups of 5 P's followed by 'RMP' (= Navy Kaliningrad), then into the weather forecast for the Baltic area in plain text. All in CW. Then all went silent.

Apart from station P, also L, S, R, C and V are frequently heard. The home of the markers are ports where also Russian naval bases are located. L is located in St Petersburg, S is in Arkhangelsk, C in Moscow, R and V are yet unknown. The now defunct markers 'U' and 'K' were respectively in Odessa and in Petropavlovsk.

The odd thing is that I never heard any RTTY on other 'beacon' frequencies, while C, R, S and V are there for many years. I also don't know anyone else who did hear anything but the markers. So keep you ears open and let me know what you hear.

Frequencies:

Channelmarker 'C': 3564, 4302, 5306, 7039, 8459, 10612, 13636, 17016 kHz

Channelmarker 'L': 3090, 26170 kHz
Channelmarker 'P': 3167, 3208, 3262, 3264, 3290, 3807, 4043 kHz
Channelmarker 'R': 3195, 4326, 7452, 25250 kHz
Channelmarker 'S': 4301, 8485, 10872, 17015.7 kHz
Channelmarker 'V': 3658, 4446, 4576 kHz

As said 'P' is the most active station, also in digital modes:

3208,00 "BEACON" Kaliningrad 'P' CW 23,07 15.02.95 at 23:12 UTC
into high speed CW, marker silent then into RTTY (see below)
after RTTY cast, the marker was back again.
3208,00 UNID RTTY-System RTTY 23,15 15.02.95
Synchronization sequence at the beginning, then 50 Baud PSEUDO#
bitstream (POL-ARQ synchronization possible, but this is only a
coincidence)
3807,00 UNID RTTY-system RTTY 22,15 15.02.95
Same system as on 3208 ! First bits inverted. During the RTTY cast,
the marker was not heard, immediately after RTTY ceased, the marker
was back as usual.

The 'Russian Man'

The 'Russian Man' numbers stations transmits every morning at 08.00 UTC on
14890 and at 08.20 UTC on 11270 kHz. The format used is as follows:
'615 615 615 40577 40577' repeated for 10 minutes, followed by the next
message. When they are finished a '00000' message is sent.

On 26-2 at 08.00 UTC, the Russian Man was very busy. I wonder who and where
'615' is. This is what I caught: no activity on 11270, only a carrier for a
couple of minutes, all messages were on 14890 kHz. It was also the first time
that a digital mode was heard.

08.00: 615 40577
08.05: pause
08.10: 615 11111 40237
08.20: 615 40737
08.30: 615 42967
08.40: pause
08.50: 615 11111 42607
09.02: into a digital mode for ca 30 secs
09.02: pause
09.10: 615 11111 42377
09.20: pause
09.30: 615 11111 43207
09.40: pause
09.45: 615 11111 00000

Mossad

I received a couple of loggings accompanied with the question about the different callsigns.

4665.00kHz 0417h 23 Feb 95 AM 33333 English Numbers
Calling VLB2. Same voice as EE#. Tx continued past 0430
without follow-up "message," just continued call.

The term 'different callsigns' is not exactly correct. The transmissions begin with a network identifier and sometimes a numerical code to indicate the status of the message. Just 'VLB' would mean that messages will follow. VLB1 means 'there is no traffic but a new schedule is being activated', while VLB2 means 'there is no traffic for you, watch the next schedule'.

The CIA is a well know numbers provider. Here's the sked:

REMINGTON NUMBERS SCHEDULE

times are in UTC , frequencies in KHz

"TYPE" is in the format "XXY" - "XX" ="SS"(SPANISH), "EE"(ENGLISH)
"CW"(MORSE CODE), "Y" = (# DIGITS), "*" = (EVERY DAY), "#"= CEASED

TIME	FREQ.S	DAYS	TYPE	TIME	FREQ.S	DAYS	TYPE
0000	9074/11532	TWThF	SS4	1300	#5090/6840	SuWSa	SS4
	5090/6840	TTh	CW5		10570/13808	W	SS4
					8418/11532	Sa	SS4
0100	6802/9074	T	SS4				
	9074/11532	WThSu	SS4	1400	9074/11532	TF	SS4
	9222/11532	F	SS4		8418/10665	Sa	SS4
	6802/9074/				5090/6840	WTh	EE
	11532	Sa	SS4		14750/15810	T	SS4
0200	4670/5812	MSa	SS4	1600	8418/10665	Su	SS4
	6802/9074	TTh	SS4		11532/16450	WTh	SS4
	5812/8418	F	SS4		13808/14750	Th	EE
	5090/6840	Th	EE3/2				
				1700	15651/16450	MF	SS4
0230	6840/9958	*	SS4		11532/16450	WTh	SS4
0300	4307/4670	MTh	SS4	1730	9958/18737	*	CW4
	9074/11532	TWSu	SS4				
				1800	10665/13452	MTh	SS4
0330	6840/11605	*	CW4		11532/16450	F	SS4
					7836/9958/		
0400	8418/11532	M	SS4		13808	Sa	CW4
	6802/9222	TF	SS4				
	9222/11532	W	SS4	1900	9222/11532	T	EE
	9074/11532	Th	SS4		15810/17693	Sa	SS4

	5812/6802	Su	SS4				
				2000	4670/6802	SuT	SS4
0500	8418/11532	M	SS4		11532/16450	M	SS4
	6802/8418	WSa	SS4		11491/16310	TThSa	SS4
	5812/6802	F	SS4		10665/11532	F	SS4
					#5090/6840	*	SS4
0600	4670/6802	MW	SS4				
	#8412/9074	Th	SS4	2100	11532/16450	W	SS4
	#5812/6802	ThF	SS4		18621/16450	W	SS4
	#5090/6840	*	SS4				
				2200	15651/16450	T	SS4
0700	5812/6802	T	SS4		9074/14421	W	SS4
					11532/13452	Th	SS4
1000	5238/6802	M	SS4		#5090/6840	*	SS4
	5812/6802	T	SS4				
	5238/6802	Th	SS4	2300	9074/11532	TTh	SS4
					15651/16450	F	SS4
1030	7725/10324	*	SS4				
1100	11532/14421	Su	SS4				
	5238/5812	MTh	SS4				
	9074/13452	TF	SS4				
	9074/10665	W	SS4				

Richard Brown sent us a book-tip:

 The Sigint Secrets, The Signals Intelligence war, 1900 to Today
 author: Nigel West
 publisher: William Morrow & Co Inc, New York
 ISBN 0-699-07652-1

'' It's a history (partial) of the British signals intelligence efforts
 from the beginning of radio to approx 1986.
 For an example, the British government, at one time, required ALL cable
 companies to deliver copies of ALL telegrams to them within a period of
 10 days of transmission (information suppressed until Feb 1967 (pg 112))''

New numbers station

 There is a new numbers station on at 19.00 UTC, Mondays on 6645 kHz AM. The
 station starts with 3 minutes of Jean-Michel Jarre music, then into 17 5F
 groups. Then "again, again" and 17 groups repeated, ending with a minute
 or so of the music. YL's pronunciation is odd with 2=Du and definite roll
 of the "R"s. The message coding is very peculiar, only certain few numbers
 in a few of the 17 groups seem to change each week.

As J.M. Jarre is a French musician and '2' in French is 'deux' -very much like
 'du'- I wonder... could this be a French station ?

Numbers Club

I mentioned the Enigma numbers club in WUN #1. For those who are interested in the European Numbers Information Gathering and Monitoring Association, you may write for more info to B.R.C., 31 Manor Row, Bradford, West Yorkshire, BD1 4PS, United Kingdom, or write to e-mail address mikec@praxis.co.uk

A new riddle within a mystery, wrapped in an enigma :-)

There's an unid station on 7639.5, 13967.2 and 20.996.2 kHz who transmits a message every 10 minutes. The transmissions are in Sitor-B (FEC). The odd thing about this station is the kind of messages it broadcasts. They consist of two lines. The first line is always a series of 3 even numbers followed by the time MINUS 8 MINUTES. The time is given in UTC. The second line of each message is always as follows: 2 dashes, 2 vertical dashes, 5Z 5Z TR TR and again 2 dashes.

I captured the following transmissions. These are the first lines:

```
15.48 UTC: ''20 20 20 16 16 16 30 30 30 15H40M58S''
15.58 UTC: ''12 12 12 30 30 30 12 12 12 15H50M59S''
16.08 UTC: ''30 30 30 10 10 10 30 30 30 16H00M58S''
16.18 UTC: unreadable
16.28 UTC: ''18 18 18 24 24 24 26 26 26 16H20M59S''
16.38 UTC: unreadable
16.48 UTC: '' 8 8 8 14 14 14 22 22 22 16H40M58S''
16.58 UTC: ''12 12 12 30 30 30 24 24 24 16H50M59S''
17.08 UTC: '' 4 4 4 4 4 4 30 30 30 17H00M59S''
17.18 UTC: '' 0 0 0 6 6 6 30 30 30 17H10M58S''
```

The second line of each message: '' --ii 5Z 5Z TR TR -- ''
So far no id has been noted.

Additional info from my 'Digital Review' column, April 1998:

::: Timestamp station

The mysterious timestamp station is around for several years now. The station transmits from a spot approximately 60 km NE of Paris. According to a usually reliable source, they are a series of observatories that are fed correctional (geophysical??) data from the transmitter site, which, too is an observatory just outside Paris. It sends a summary once a day, too. There are a number of freqs in use, though not usually any

more than 3 per 18-hour period - probably for coverage redundancy and reliability in changing propagation conditions.

o Frequencies: 5112.2 5127.2 5725.2 7639.2 7762.2
 11482.2 13967.2 15741.5 19013.5 20962.5 20966.2

o Modes: Sitor-A, Sitor-B

o Format and operational notes

The station is supposed to be on the air for 18 hours a day, but during a three weeks listening session the off air period varied from 2 to 6 hours.

Every 10 minutes a string of figures followed by the time being UTC or UTC+1 is transmitted in Sitor-B. This is the weird part of the story. Why would a French station stick to British time (UTC = British winter-time and UTC+1 = summertime), unless the data that is being transmitted is destined to British users.... It certainly looks that way because the language used is English. The freqs are duplex freqs but I haven't found any QSX freq. Communications with the other stations are in Sitor-A and the messages are encrypted except for the callsigns and a few words in plain English. After each line of on-line encrypted stuff follows +? The other stations apparently have to react. The second line of the Sitor-B 'time stamp' messages changes after each Sitor-A message.

[Note that the actual time difference was in the past UTC(+1) + 8 mins, but they changed it now to UTC(+1).]

Example:

```
-26 -26 -26 -30 -30 -30 -24 -24 -24 - 19h30m54s
-- jn jn jn jn 7j 7j --
```

There are three parameters in the first line, each one is repeated three times, followed by the time stamp. The parameters are always even numbers, both negative and positive in the range of 2-30.

The character groups in the second line follow a specific pattern. As I said, the pattern changes after each Sitor-A message. During a listening period of three weeks late last year, I noted the following pattern:

```
-- --
-- JN JN --
-- JN JN JN JN --
-- JN JN 7J 7J --
-- JN JN JN JN 7J 7J --
-- 7J 7J --
-- --
-- JN JN --
```

etc

When the Sitor-A transmissions take place, the next Sitor-B transmission is often skipped. Sometimes, if they finish their conversation in time, the transmitter stays on and they change from Sitor-A to B and go on with the normal routine.

It seems that other stations are replying because I noted Sitor-A to PAVI119 and others consisting of encrypted one-line messages followed by +? after which (I think) the other stations are replying. Often also AAA+?, NNN+? and OK+? is transmitted.

Station id's or callsigns(?) noted so far are:

PAVI 118, PAVI 119, PAVI 120, PAVI 121, VIPA 230, and VIPA 231.

o Examples

Sitor-B transmission

-26 -26 -26 -30 -30 -30 -24 -24 -24 - 19h30m54s
-- jn jn jn jn 7j 7j --

-16 -16 -16 12 12 12 -26 -26 -26 - 19h40m54s
-- jn jn jn jn 7j 7j --

Sitor-A transmission

ok+?
3
pavi118
pavi119
vipa230
@
+?
ftxisqjmhdmehnkebsjdpftxisqjmhndnbnjfbngjbsrpjuxaaflj
+?
qjmhdmehnkebsjdpftxisqjmhndnbnjfbngjbsrpjuxaaflj
+?
tlmunpcojsdbfvdojtdxhymnghgfgwovlnjlmhpmoviwxrmdjaoa
+?
qznaxgrhylmfolqvtgwsfvqzllxvtzlaipimycgbovrknbcwcpo
+?
suekutyzwarrhuvnhoeofhcicvcaudbycpwedorqhdxmabdnomn
+?
lbhoyahmgyncfzclqpknrlemixmvjcvukyobtmhhtvhiwdglghe
+?
fpyrdfqlmyqpctgrslpbyfenlhtkjjmzeiehxgvsukiipyujlbjh

```

+?
jatnashkkkbresmggwkephndxazchahnjqvezpsoufnmwrsciiiaf
+?
gasqpkegoekmfgiokivemqvmynhsqqohlqbgxaibfrbfbtcnpgj
+?
ohdaupjkljmbvbkmfhblmczjsbxwhshvrvqwcjukdquenjnmpb
+?
acpltuिताidxacpgznpvgkzobzdsbbaahkcfsqsgypcrqkfpypieipm
+?
      <clip clip clip>
+?
wlvvozgaxkovlbkatrxecomki
+?
nnn+?

```

...and back to Sitor-B again. Note the change in the second line

```

-28 -28 -30 -30 -30 30 30 30 - 09h00m54s
-- jn jn jn jn --

-24 -24 -30 -30 -30 30 30 30 - 09h10m54s
-- jn jn jn jn --

```

Another example. Sitor-B into Sitor-A. Note the addresses pavi120, pavi121, then 'pavi120 deleted'. The second line changes again after the Sitor-A message.

```

-30 -30 -30 30 30 30 -16 -16 -16 - 18h00m54s
-- jn jn jn jn --

+?
2
pavi120
pavi121
@
+?
pavi120 deleted +?
ftxjapdcspwxmtlhspkezftxjapdcspysdhftszzqbdjdghvdbcdgd
+?
xjapdcspwxmtlhspkezftxjapdcspysdhftszzqbdjdghvdbcdgd
+?
~pbgemnbnuwahudmgxivrzlgodrozkrdbxjpzkakcnaqhyimpl
+?
mfbcowcejenncbfkwcnbzcedfapqvdfvimqulayztwjdfzwpiag
+?
bflqjrvydmvvzpkcgvuvxqsczrnbqydsfnxqbgaztkycjacnkgcp
+?

```


aappicbgdtasb~zhtkmsbfglekeojdmeeecndfsmzpjumedv~~cdh
+?
jsganljmxeegobfffqzkufleyxysjzwotndekhfirmdirfxmbphng
+?
ygbeitlscrcvvdjlijjlminwhpbkzhgvkmsvvoyrcabr~umhlgn
+?

<clip clip clip>

-26 -26 -26 -20 -20 -20 -2 -2 -2 - 18h50m54s
-- 7j 7j --